

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1058535

Luminaire Tested: S122RDR-H865D835-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058535
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-55)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H865D835-X4F0-XX-UDD-WVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

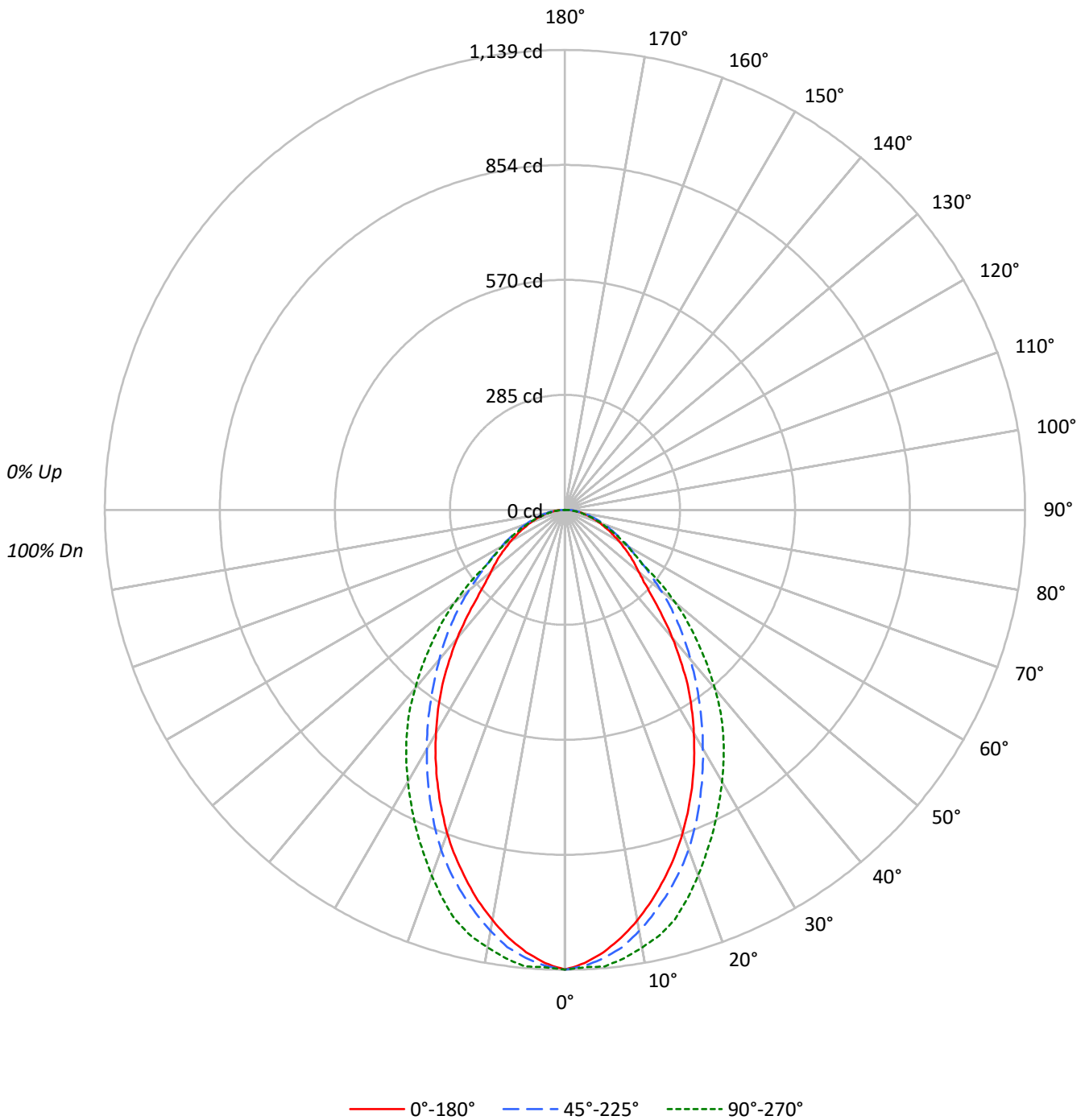
Lumens per Lamp: N/A
Luminaire Lumens: 1856.3 lumens
Efficiency: N/A
Efficacy: 59.5 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20	
RC	80					70					50					30					10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87				
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76				
3	94	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	68	67				
4	88	77	69	64	85	76	69	63	73	67	62	71	66	62	69	65	61	59				
5	81	70	62	56	80	69	62	56	67	60	55	65	59	55	63	58	54	52				
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47				
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	44	43				
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41	39				
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36				
10	59	47	40	35	58	46	40	35	46	39	35	45	39	35	44	38	34	33				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	21010	21010	21010
5°	20366	20638	21024
10°	19339	19844	20624
15°	18102	18781	20068
20°	16732	17598	18922
25°	15207	16103	17748
30°	13592	14557	16566
35°	11914	13045	15390
40°	9968	11649	13892
45°	7988	10321	12142
50°	6852	8893	10194
55°	6264	7563	7522
60°	5694	6687	6551
65°	5187	5986	5720
70°	4759	5481	5088
75°	4449	5062	4449
80°	4166	4686	3900
85°	4150	4933	3366

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12142 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.1	5.7
10°-20°	278.3	15.0
20°-30°	367.0	19.8
30°-40°	369.6	19.9
40°-50°	300.8	16.2
50°-60°	205.1	11.0
60°-70°	133.1	7.2
70°-80°	73.3	3.9
80°-90°	23.9	1.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	750.4	40.4
0°-40°	1120.0	60.3
0°-60°	1626.0	87.6
0°-90°	1856.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1856.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1139	1139	1139	1139	1139	
5°	1100	1120	1114	1124	1135	103
15°	948	972	983	1024	1050	265
25°	747	771	791	826	872	342
35°	529	556	579	629	683	328
45°	306	344	396	430	465	241
55°	195	214	235	236	234	174
65°	119	141	137	130	131	118
75°	62	77	71	64	62	66
85°	20	26	23	18	16	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1138.6	1138.6	1138.6	1138.6	1138.6
2.5°	1123.9	1142.3	1130.1	1131.3	1133.7
5°	1099.5	1120.3	1114.2	1123.9	1135.0
7.5°	1068.9	1089.7	1092.1	1106.8	1120.3
10°	1032.1	1055.4	1059.1	1081.1	1100.7
12.5°	991.7	1017.4	1022.3	1054.2	1079.9
15°	947.6	972.1	983.1	1023.6	1050.5
17.5°	901.1	924.4	941.5	978.3	1008.9
20°	852.1	874.2	896.2	929.3	963.6
22.5°	799.5	824.0	844.8	877.9	917.0
25°	746.9	771.3	790.9	826.4	871.7
27.5°	693.0	717.5	737.1	775.0	824.0
30°	637.9	663.6	683.2	726.0	777.5
32.5°	584.0	609.7	631.8	677.1	730.9
35°	528.9	555.9	579.1	629.3	683.2
37.5°	470.1	500.8	530.1	580.3	633.0
40°	413.8	448.1	483.6	530.1	576.7
42.5°	357.5	395.5	439.5	478.7	521.6
45°	306.1	344.0	395.5	429.7	465.3
47.5°	265.7	297.5	352.6	380.8	412.6
50°	238.7	260.8	309.8	331.8	355.1
52.5°	216.7	235.1	269.4	284.0	296.3
55°	194.7	214.3	235.1	236.3	233.8
57.5°	172.6	194.7	205.7	197.1	202.0
60°	154.3	176.3	181.2	172.6	177.5
62.5°	134.7	159.2	159.2	150.6	153.0
65°	118.8	140.8	137.1	129.8	131.0
67.5°	102.8	124.9	118.8	111.4	111.4
70°	88.2	109.0	101.6	94.3	94.3
72.5°	74.7	91.8	86.9	78.4	77.1
75°	62.4	77.1	71.0	63.7	62.4
77.5°	50.2	62.4	57.5	51.4	49.0
80°	39.2	50.2	44.1	39.2	36.7
82.5°	29.4	38.0	33.1	28.2	25.7
85°	19.6	25.7	23.3	18.4	15.9
87.5°	9.8	17.1	14.7	12.2	9.8
90°	0.0	0.0	0.0	0.0	0.0



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	17.30	18.74	17.66	19.05	19.37	17.55	18.98	17.91	19.30	19.61
	3H	18.83	20.11	19.21	20.44	20.81	18.90	20.19	19.28	20.52	20.88
	4H	19.39	20.59	19.79	20.94	21.32	19.38	20.59	19.79	20.94	21.32
	6H	19.81	20.92	20.23	21.29	21.69	19.73	20.84	20.15	21.21	21.61
	8H	19.97	21.02	20.39	21.41	21.82	19.84	20.90	20.27	21.29	21.69
	12H	20.08	21.09	20.51	21.47	21.90	19.91	20.92	20.34	21.30	21.73
4H	2H	17.87	19.08	18.27	19.43	19.81	18.07	19.27	18.47	19.62	20.00
	3H	19.67	20.67	20.09	21.07	21.48	19.64	20.64	20.06	21.04	21.45
	4H	20.42	21.31	20.85	21.73	22.17	20.24	21.14	20.67	21.55	21.99
	6H	21.00	21.78	21.46	22.23	22.69	20.71	21.49	21.17	21.93	22.39
	8H	21.21	21.94	21.68	22.39	22.86	20.86	21.59	21.32	22.03	22.50
	12H	21.38	22.03	21.86	22.51	22.98	20.97	21.61	21.45	22.09	22.57
8H	4H	20.68	21.41	21.15	21.86	22.32	20.53	21.26	20.99	21.70	22.17
	6H	21.44	22.04	21.94	22.53	23.01	21.12	21.72	21.62	22.21	22.69
	8H	21.76	22.30	22.28	22.81	23.30	21.34	21.88	21.86	22.39	22.88
	12H	22.04	22.52	22.56	23.01	23.58	21.52	22.00	22.04	22.49	23.06
12H	4H	20.69	21.34	21.18	21.82	22.30	20.56	21.21	21.05	21.69	22.16
	6H	21.48	22.02	22.00	22.53	23.02	21.19	21.73	21.70	22.24	22.73
	8H	21.88	22.36	22.39	22.85	23.42	21.47	21.95	21.98	22.44	23.01